(സി, ഡി, ഇ, എഫ്) ലോകാരോഗ്യ സംഘടനയുടെയും കേന്ദ്ര ആരോഗ്യവകുപ്പിന്റെയും പ്രവർത്തന മേഖലകളുമായി സമന്വയിപ്പിച്ചു കൊണ്ടും സംസ്ഥാനത്തിന്റെ തനതായ ആവശ്യങ്ങൾക്കനുസൃതമായ സംസ്ഥാനത്തിന്റേതായ ഒരു ആരോഗ്യനയം രൂപീകരിക്കുന്നതിന്റെ പ്രാരംഭ ഘട്ടമെന്ന നിലയിൽ ഒരു കരട് ആരോഗ്യനയം തയ്യാറാക്കി പൊതുജനാഭിപ്രായത്തിനായി അടുത്തകാലത്ത് പ്രസിദ്ധപ്പെടുത്തിയിട്ടുണ്ട്.*

ചോദ്യത്തിൽ സൂചിപ്പിച്ചിരിക്കുന്ന വിഷയങ്ങൾ ഇതിൽ പ്രതിപാദിച്ചിട്ടുണ്ട്. കരട് ആരോഗ്യനയത്തിന്റെ ഒരു പകർപ്പ് അടക്കം ചെയ്യുന്നു. അഭിപ്രായ സമന്വയവും വിശദമായ പഠനവും നടത്തിയതിനു ശേഷമേ അന്തിമ രൂപം നൽകാനാവൂ.

15 (*14) മുല്ലപ്പെരിയാർ ഡാമിന്റെ സുരക്ഷാ പ്രശ്നങ്ങൾ

ശ്രീ. കെ.എം.മാണി :
ശ്രീ. സി.എഫ്.തോമസ് :
ശ്രീ. തോമസ് ചാഴികാടൻ :
ശ്രീ. മാമ്മൻ മത്തായി : താഴെക്കാണുന്ന ചോദ്യങ്ങൾക്ക് മുഖ്യമന്ത്രി സദയം മറുപടി നൽകുമോ :

(എ) സുപ്രീംകോടതി നിർദ്ദേശപ്രകാരം മുല്ലപ്പെരിയാർ ഡാമിന്റെ സുരക്ഷാപ്രശ്നങ്ങൾ പഠിക്കുന്നതിന് ഒരു വിദഗ്ധസംഘം ബേബി ഡാമിൽ സന്ദർശനം നടത്തുകയുണ്ടായോ;

(ബി) ഉണ്ടെങ്കിൽ പ്രസ്തുത സംഘം അവിടെ എന്തൊക്കെ പരിശോധനകൾ നടത്തിയെന്നും, അവരുടെ റിപ്പോർട്ട് കേന്ദ്ര ജലവിഭവ മന്ത്രാലയത്തിന് കൈമാറിയിട്ടുണ്ടോയെന്നും വിശദമാക്കാമോ;

(സി) ജലനിരപ്പ് 152അടി ആയി ഉയർത്താൻ ഇടയായാൽ ഉണ്ടായേക്കാവുന്ന പാരിസ്ഥിതിക പ്രത്യാഘാതം രൂക്ഷമായിരിക്കുമെന്ന് കേരള വനഗവേഷണ ഇൻസ്റ്റിറ്റ്യൂട്ട് നടത്തിയ പഠനത്തിൽ കണ്ടെത്തുകയുണ്ടായോ എന്ന് വ്യക്തമാക്കാമോ;

(ഡി) ഉണ്ടെങ്കിൽ പ്രസ്തുത റിപ്പോർട്ടിന്റെ കോപ്പി ലഭ്യമാക്കാമോ;

(ഇ) ആദിവാസികളെ നിർബന്ധമായി കുടിയിറക്കേണ്ടതായി വരുന്ന അവസ്ഥാ വിശേഷം സൃഷ്ടിക്കപ്പെടാനിടയുണ്ടെന്നും വന്യജീവികളുടെ ആവാസ വ്യവസ്ഥ തകിടംമറിയാനിടയാക്കുമെന്നുള്ള ഗുരുതരമായ സംഗതി കേന്ദ്ര ഗവൺമെന്റിന്റെ ശ്രദ്ധയിൽകൊണ്ടുവന്നിട്ടുണ്ടോ;

(എഫ്) ഉണ്ടെങ്കിൽ വിശദാംശങ്ങൾ അറിയിക്കാമോ?

മുഖ്യമന്ത്രി (ശ്രീ. ഇ.കെ. നായനാർ) :

(എ, ബി) ഉണ്ടായി; മുല്ലപ്പെരിയാർ പ്രശ്നത്തിൽ കേരള-തമിഴ്നാട് സംസ്ഥാനങ്ങൾക്കിടയിൽ സമവായം ഉണ്ടാക്കണമെന്ന സുപ്രീം കോടതി നിർദ്ദേശത്തിന്റെ വെളിച്ചത്തിൽ കേന്ദ്ര സർക്കാർ രൂപീകരിച്ച വിദഗ്ധ സമിതി 10.10.2000-നും 11.10.2000-നും മുല്ലപ്പെരിയാറിലെ രണ്ട് ഡാമുകളും ഈ വിദഗ്ധ സമിതിയുടെ ശുപാർശ പ്രകാരം സി.എസ്.എം.ആർ.എസ്. വിദഗ്ധ

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* അനുബന്ധം IV

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സംഘം നവംബർ 20-ാം തീയതി മുതൽ 24-ാം തീയതി വരെ ബേബി ഡാമിലും പരിശോധന നടത്തി. കേന്ദ്ര വിദഗ്ധ സമിതി പ്രധാന ഡാമിലും ബേബി ഡാമിലും മറ്റുമുള്ള ലീക്കുകളും മറ്റും നിരീക്ഷിക്കുകയല്ലാതെ സാങ്കേതിക പരിശോധനകൾ ഒന്നും തന്നെ നടത്തുകയുണ്ടായിട്ടില്ല. ഈ നിരീക്ഷണത്തെ അടിസ്ഥാനപ്പെടുത്തി പ്രധാന ഡാമിൽ 145 അടിവരെ വെള്ളം സംഭരിക്കുന്നതിന് തക്ക സുരക്ഷയുണ്ടെന്നും ഇതിനായി ബേബി ഡാം ബലപ്പെടുത്തേണ്ടതുണ്ടെന്നുമുള്ള നിഗമനത്തിലെത്തുകയായിരുന്നു. 19.10.2000-ൽ ന്യൂഡൽഹിയിൽവച്ച് ചേർന്ന സമിതിയുടെ യോഗത്തിൽ ബേബിഡാമിന്റെ സുരക്ഷ കേന്ദ്ര സോയിൽ ആന്റ് മെറ്റീരിയൽസ് റിസർച്ച് സ്റ്റേഷൻ (സി.എസ്. എം.ആർ.എസ്.) മുഖേന പരിശോധിക്കണമെന്ന് തീരുമാനിച്ച പ്രകാരം സി.എസ്.എം.ആർ.എസ്. സംഘം 20.11.2000 മുതൽ 24.11.2000 വരെ താഴെ പറയുന്ന ടെസ്റ്റുകൾ ബേബി ഡാമിൽ നടത്തുകയുണ്ടായി : -

(1) പൾസ് വെലോസിറ്റി ടെസ്റ്റ്
(2) ഗ്രൗണ്ട് പെനിട്രേഷൻ റഡാർ ടെസ്റ്റ്
(3) കോർ സാമ്പിൾ ടെസ്റ്റ്

വിദഗ്ധസമിതി അതിന്റെ ഇടക്കാല റിപ്പോർട്ട് കേന്ദ്രജലവിഭവ മന്ത്രാലയത്തിന് കൈമാറിയിട്ടുണ്ട്.

(സി,ഡി) മുല്ലപ്പെരിയാറിലെ ജലനിരപ്പ് 152 അടിയായി ഉയർത്തിയാൽ പാരിസ്ഥിതിക പ്രത്യാഘാതങ്ങൾ ഉണ്ടാകുമെന്ന് പഠനം വ്യക്തമാക്കുന്നുണ്ട്; റിപ്പോർട്ടിന്റെ പകർപ്പ് അനുബന്ധമായി ചേർത്തിരിക്കുന്നു.*

(ഇ, എഫ്) കേന്ദ്രം നിയോഗിച്ച വിദഗ്ധ സമിതിയെ വന്യജീവികളുടെ ആവാസ വ്യവസ്ഥയിലുണ്ടായേക്കാവുന്ന ഗുരുതരാവസ്ഥയും ആദിവാസികളുടെ കുടിയൊഴുപ്പിക്കലുമടക്കം എല്ലാ വസ്തുതകളും ബോദ്ധ്യപ്പെടുത്തിയിട്ടുണ്ട്. അതിനുപുറമേ സുപ്രീംകോടതിയിൽ നിലവിലുള്ള ട്രാൻസ്ഫർ പെറ്റിഷൻ കേസിൽ വനംവകുപ്പും സത്യവാങ്മൂലം സമർപ്പിക്കണമെന്ന് തീരുമാനിക്കുകയും ആയതിന്റെ അടിസ്ഥാനത്തിൽ ഇക്കാര്യങ്ങളെല്ലാം വിശദമാക്കുന്ന സത്യവാങ്മൂലം സുപ്രീം കോടതിയിൽ സമർപ്പിക്കാൻ വേണ്ട നടപടികൾ സ്വീകരിക്കുകയും ചെയ്തിട്ടുണ്ട്.

16 (*15) വിവര സാങ്കേതികവിദ്യ, ടെലികമ്മ്യൂണിക്കേഷൻസ് എന്നീ മേഖലകളുടെ വികസനം

ശ്രീ. കടകംപള്ളി സുരേന്ദ്രൻ :
ശ്രീ. ജി.സുധാകരൻ :
ശ്രീ. പി.രാഘവൻ :
ശ്രീ. സെബാസ്റ്റ്യൻ പോൾ :
ശ്രീ. എം.ദാസൻ : താഴെക്കാണുന്ന ചോദ്യങ്ങൾക്ക് മുഖ്യമന്ത്രി സദയം മറുപടി നൽകുമോ :

(എ) സംസ്ഥാനത്ത് വിവരസാങ്കേതികവിദ്യ, ടെലികമ്മ്യൂണിക്കേഷൻസ് എന്നീ മേഖലകളുടെ വികസനം ലക്ഷ്യമാക്കി എന്തെങ്കിലും പദ്ധതി ആവിഷ്ക്കരിച്ചു നടപ്പാക്കാൻ സർക്കാർ ഉദ്ദേശിക്കുന്നുണ്ടോ; എങ്കിൽ വിശദാംശം വെളിപ്പെടുത്തുമോ;

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* അനുബന്ധം V

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അനുബന്ധം V

18-12-2000 ലെ നക്ഷത്രചിഹ്നമിട്ട 15('X'14-00) നമ്പർ ചോദ്യം ദയവായി കാണുക

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT OF INCREASING THE WATER LEVEL AT PERIYAR LAKE IN PERIYAR TIGER RESERVE FROM 136 FT TO 152 FT STUDY REPORT BY THE TEAM CONSISTING OF

1. Dr. A. R.R. Menon, KFRI
2. Dr. P.S. Easa, KFRI
3. Dr. N. Sasidharan, KFRI
4. Dr. S. Sankar, KFRI
5. Wildlife Preservation officer

INTRODUCTION

Periyar Tiger Reserve is situated between 9° 15' and 9° 40' N Latitude on the Western Ghats in the Idukki District of Kerala. The altitude of the Reserve various from 900 mt to 2019 mt. The terrain is undulating . The lake which forms the nuclear of the Tiger Reserve is 26 Sq. Km in area. This was formed by the construction of Mullaperiyar Dam across the Periyar river in 1895.

Objectives

1. Determine loss of land and its features.
2. Evaluate the impact on wildlife
3. To asses the impact on flora
4. Impact on tourism
5. To assess the impact on settlements and life support system.
6. To collate the legal issues related to submergence.

1. Determine loss of land and its features.

The total area of Periyar Reservoir as per 870 m contour (Ref. SOI Toposheets 1 : 25,000 58 G2/SE Published in 1997) was estimated using Planix 5000 electronic planimerter and it was calculated as 25.527 Km^2. As per the information available with Tamil Nadu PWD the Reservoir bed level is at 2709 ft. and FRL is at 2861 ft. (ie, 867 m) From the SOI Toposheets 58 G2 /SE of 1 : 25,000 scale it was observed that the reservoir level marking is at 870 m. contour, and the reservoir area was estimated accordingly as 25.527 km^2 . Again the area of water spread region alone was also calculated and it was found to be 14.308 km. Thus the submergible area at 152 ft. level above 136 ft. is 11.219 Km^2. It is also noted from the map that there islands (Fig. 1) in the reservoir covering an area of 7.158 km^2. The details are given in Table 1. During the field trips conducted on 22nd and

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23rd March 2000 it was also observed that marshes and grasslands adjacent to the reservoir are of higher importance in the food/ fodder availability. By raising the water level these marshes, developed because of the continuous top soil deposits, along the reservoir banks will be destroyed, which may serious affect the food/fodder availability of wild animals in the area. Again this may affect the animal sighting aspects of the Tourism zone. For getting more precise information it required a detailed impact study of the area.

Table 1 Area of islands in the Designer Reservoirs

Sl.No.	Area km^2	Sl. No.	Area Km^2
1	0.017	14	0.010
2	0.009	15	0.181
3	0.015	16	0.015
4	0.004	17	0.020
5	0.001	18	0.069
6	0.089	19	0.024
7	0.006	20	0.008
8	0.072	21	0.002
9	0.035	22	1.612
10	0.025	23	0.720
11	0.010	24	1.612
12	1.007	25	4.142
13	0.008		
		Total	7.158 km^2

2. Evaluate the Impact on Wildlife.

A rapid survey was conducted along the fringes of the lake in March 2000, by laying 13 numbers of 500 m long transects to assess intensity of utilization of these areas by different species of mammals. The indirect evidences along the transects were recorded and analysed for their density. The earlier records of animal observations in PTR were also scanned for information on the distribution of animals.

The results of the rapid survey clearly indicate the high utilization of the lake fringes by different mammalian species even up to about 400 m away from the lake side. However, high concentration of elephants were observed up to 100m, of gaur up to 450 m. and sambar deer upto 500m.

Though the animals were seen widely distributed in the Reserve, the records of animal sightings in different parts of the Tiger Reserve also indicate a higher usage of the areas around the lake. The analysis of the data

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collected during the study on gaur had also indicated higher utilization of these areas due to higher availability of palatable food species especially the grasses.

The elephants, the largest animal in the Reserve with larger area requirement had almost got used to the system after about 100 years since the reservoir has come into existence. The observations on the elephants in the Reserve has shown that they swim across the lake only at specific points with less number of dead tree stumps and gradual slopes . The alternation in the height of the reservoir will be confusing the elephants, which may take a long time again to get used to the changes before getting stabilised. There could be even mortalities in the process.

The water level if raised could also submerge the stumps used by the aquatic birds. This could be detrimental to the already dwindling population of the snake bird and the little commorants.

The lake and its associated streams support 37 species of fishes. Periyar trout, Periyar latia and Periyar barb are seen only in Periyar. The endangered game fish Deccam Mabhsser is mostly in the up streams.

Temperature, rainfall and canopy cover can be some of the limiting factors in the distribution of fishes (as far as the Physical factors are concerned) , water temperature could be a limiting factor in the distribution of fishes like *Tor khudree C. Periyarensis* and *P. ophiocephalus* while food resources and habitat characteristics can limit the distribution of other fish species like loaches. The loaches are generally benthic, the distribution and abundance of which are greatly influenced by the presence of organic matter in the form of leaf litter, debris, dead twings etc.

The eels (*Anguilla bengalensis and A. bicolor*) which was reported by Chacko (1948) from Periyar lake was found to be missing in the subsequent surveys (Arun et al, 1996) The absence of eels and some other species has been reported to be due to the negative impact of high-headed dams on fish life.

A change in the water level of the reservoir will lead to a loss in the stream areas available to the stream fishes forcing them to move further up. The complex lake system may be in a stabilised stage after inundation for 100 years . A change in the water level could destabilise the system threatening the native fishes.

3. To assess the impact on Flora

The Periyar Tiger Reserve is the the largest protected area in Kerala with an extent of 777 Km^2. The flora of Periyar Tiger Reserve has been studied recently (Sasidharan, 1998), resulting in documenting . 1965 species of flowering plants. Dicotyledons dominate with 1440 species in 613 general under 137 families. Monocotyledons are represented by 525 species in 210 genera under 22 families. Poaceae with 168 species among

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Monocots and Fabaceae with 155 species among dicots are dominant families. Among the 159 families, 28 dicot and 6 monocot families are represented by single species each.

The floristic analysis shows that the Family Poaceae consisting of grasses and bamboos has a representation of 168 species is the richest assemblage of the family in any protected area or even in a district in Kerala . Similarly, the occurrence of 155 species of leguminosae and 143 Orchids including a new species *Habenaira periyarensis* Sasi et al (1998), are the highest number recorded from any protected area in the Western Ghats. Some of the largest General of Western Ghats such as *Impatiens, Strobilanthes Crotalaria Cyperus, Desmodium* are represented by more than 20 Species in the Periyar Tiger Reserve.

The diversity and richness of the flora is also revealed by the endemic species. The Periyar Tiger Reserve comes under the Anamala High Range endemism in the western ghats. Among the 1983 species 513 Western Ghats endemics which forms about 25 % of the flora. Western Ghats is considered a biodiversity hotspot because about 460 species among the 1500 endemics are placed under various threatened categories (Nayar, 1986). From Periyar Tiger Reserve 150 species belongs to the threatened categories including 15 species considered 'Possibly extinct' are recorded. The occurrence of 1965 species in an area of 777 km^2 indicates the richness and diversity of flora of the Periyar Tiger Reserve. So far, from no where in the subcontinent such a large number of taxa have been reported from an area comparable to that of Periyar Tiger Reserve.

The dominant species in the reservoir area and its immediate vicinity are the grasses and sedges. Among the 168 species of grasses and 91 species of sedges majority of them are occurring in the reservoir area and the marshy areas or 'vayals' (*Anakuthivayal, Kokkarakandam and Nellipparakandam*). The grasses and sedges an important food source for the wild animals . The Periyar Tiger Reserve is known for its rich fauna, and has the highest concentration of two larger herbivores, the elephant and the Gaur. The Sambar deer is also very common in the reserve. These animals are frequently sighted alone the reservoir banks during boat trips. Their sightings are attributed mainly due to the fodder availability along the reservoir banks. Among the food species found in the reservoir area, *Panicum repens, Cynodon dactylon , Eragrotis tenuifolia* and *species of Cyperus* spp. are the preferred food species. These species grow abundantly along the reservoir banks were there is good soil. Panicum *repens* and *Cymodon datyton* are perennials species and will be available throughout. *Penium repens* is a *hydrophilous* species and has a tendency to grow towards water. As the water level recedes, new shoots are produced from the rhizomatous root stocks, thereby fresh shoots will be available during all seasons. This species is also capable of withstanding flooding. *Panicum repens* is eaten by Elephants, Gaur, Sambar deer and

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Wild boar which are very frequently sighted along the reservoir bank. The wild boars dig out the fleshy rhizome and eaten. The elephants uproot the whole plant and eat. While the Gaur and Sambar deer browse only the aerial part of the plants. The other fodder plants seen along the reservoir banks are *Paspalum scrobiculatum, Alloteropsis cimicina, Aristida hystrix, (Bothriochloa insculpta, Brachiaria ramose, Brachiaria semlundulata, Cyrtococcum muricatum, Digitaria griffithii, D.ciliaris, D.longiflora, D.setigera, Dimeria lawsonioi, Echnochloa colona, E.crusgalli, Eleusine indica, Eragrostis nutans, E.unioloides, E.viscosa, imperata cylindrical, Isahaemum indicum, I.nilagriricum, Ottocholoa nodosa, panicum brevifolium, paspalum conjugatum, P. scrobiculatum, Perotis indica, Sacciolepis interrupta, Setaria paniculifera, S. verticillata. The important fodder sedges are Carx filicina, cypoerus compressus. C. difformis, C.ddiffusus, C. digitatus, c. distans, C. haspan, C.oatesii, C. zollingeri, Eleocharis congesta, Fimbristylis dichotoma, F.littoralis, lipocarpha chionensis, L.sphacelata.*

The trees along the reservoir banks support the growth of an endangered orchid, *Taeniophyllum scaberulum* which was recently rediscovered after a gap of 140 years. *Taeniophyllum scaberulum* is found only on the trees growing along the banks of the reservoir of the Tiger Reserve (Rajesh et al, 1997)

The Vegetation above the present water level of 136 feet is of moist deciduous and semi–evergreen forests. The reservoir and moist deciduous forest ecotone is often dominated with the growth of *Imperata cylindrica* and Themeda cymbaria. The newly formed leaves of the former is an important delicacy for Sambar deer and Gaur Commonly, seen trees along the border areas are *Terminalia paniculata , Olea dioica, syzygium cumini*, etc.the trees in this region are smaller in size and obviously established after the water level was brought to 136 feet level . The trees along the margins of semi-evergreen forests are *Actinodaphne malabarica, Chionanthus mala elengi, Croton malabaricus, Symplocos cochinchinensis Glochidion ellipticum* etc. These species were also established after .the reservoir level was brought to the present level of 136 feet. These secondary growth are obvious at Thekkady, Edapalayam Manakkavala, Swamikkayam and up to Mullakkudi. There is not much apparent changes along the margins of the trees at the upper reaches of the reservoir probably the inundation period is very short here.

The raising of the water level from the present level of 136 feet will adversely affect the fodder availability of wild animals and they are likely to move away from the present tourism zone. The present reservoir level has provided habitats for luxuriant growth of the important fodder plant, *panicum repens* . The semi-march areas developed at place like Edappalayam may be the result of deposition fine soil particles like clay, which is more conducive for the growth of sedges . By raising the

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water level, the host plants of the endangerd orchid, *Taeniophyllum Scaberulum, particularly Terminalia paniculata Psidium guajava Catunaregam spinosa, Osbeckioa lawsonii, growing along the reservoir margins will be destroyed. Taeniophyllum scaberulam* is not observed on the plants growing in the interior forests.

4. Impact on Tourisam

Thekkady attracts an ever increasing flow of tourists every year with an estimate of 4.5 lakhs of tourist visits during the year 1998-1999. This major tourist spot is also known as the ultimate tourist destination in Kerala . An estimate of Rs. 6.6 million has been generated related to tourism activity by the forest department alone from this region during the year 1998-1999. Tourist activities have also lead to the development of a township in Kumily which is just 5 Kms. away from Thekkady. This township and a relatively big population which it supports has developed an intricate relationship with the tourism activities and is greatly dependent on these activities.

Major fascination for the tourists here is boating which enable animal sightings on the lake shore grass lands. Raising the existing water level from 136 to 152 feet will result in the submergence of approximately 11.2 km^2 of forest land with in the Periyar Wildlife sanctuary. Area of submergence also include the area under lake shore grasslands and its environs.

When the water level is raised to 152 feet the feeding grounds of large herbivores will be submerged and will be shifted to areas beyond the timber line resulting in non visibility of them from the lakeside. This will have a long term and irreversible damage on the ecosystem integrity, which and the aesthetics of the environs with a direct adverse impact on tourism. The very existence of Kumily township and its life support activity will be at stake with long-term negative influences.

5. Impact on settlement and human life support systems.

After 1979, when the water level was maintained below 136 feet as much as 11.219 km^2 of land was exposed. New settlements and allied activities were developed in these areas during the past 21- years (Table 2).

This will affect 7 sites with over 1000 households and a population of 3500 – 4000 people . Both tribals and non tribals will be affected houses and agricultural land will be submerged. Thus raising the level from 136 feet to 152 feet will have implication on population and their life support system.

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Table 2. Abstract of findings of Impact on human settlement

Sl. No.	Site	Characteristics	Households/ Population	Tribal/Non Tribal	Agriculture	Non agri Activity	Years of Occupation	Use pattern
1.	Kulathupalam	Streamlet from Wetland	10/50	Non-tribal	Homesteads Pepper	Shops, Repair	From 1979	(Forest land) KSRTC bus Station
2	Mannakudi	Trail of reservoir	80/400	Tribal	Pepper/ Homestead	...	1979	EDC activities
3	Periyar Colony	Streamlet	34/200	CC Non-tribal	...	Wage labourer	1979	EDC activities
4	Labakandam	Streamlet of Kulathupalam	100/500	Non-tribal	Homestead	Wage labour employees	....	EDC activities
5	Thekkady	Tail reservoir (Swamp)	Household/60300	Non-tribal	Agricultural land/homestead	Wage labour tourism employees	1979	EDC/play ground, grazing
6	Rosapoo-kandom	Slum	700/2000	Non-tribal	....	Wage labour	....	Fire wood, thatching grass, user group/EDC
7.	Anavachal	Swamp grazing	Nil	Nil	Nil	200 cattle grazing	1979	....

Legal Issues

(When the water level is raised from 136' to 152' an area of approximately 4540.95 acres of forest land within Periyar Wildlife Sanctuary will be additionally submerged . This submergence of forest land is clearly a habitat destruction which is banned by Sec.29 of Wildlife (Protection) Act 1972 as amended in 1991). Since this submergible area is the prime wildlife habitat, the destruction of the same will be very much detrimental to the Wildlife in the Periyar Sanctuary. Section 29 of wildlife (Protection) Act reads "No person shall destroy exploit or remove any wildlife from a sanctuary or destroy or damage the habitat of any wild animal or deprive any wild animal of its habitat within such sanctuary except under and in accordance with permit granted by the Chief Wildlife Warden and no such permit shall be granted unless the State Government being satisfied that such destruction exploitation or removal of wildlife

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from the sanctuary is necessary for the improvement and better management of wildlife their in authorises the issue of such permit."

The Hon'ble Supreme Court, vide the judgments in Writ Appeal (Civil) No. 202/95 on 12-12-1996 have banned all non forestry activities in all forests of India without the prior concurrence of Central Government, warranted as per forest (Conservation) Act, 1980. The Hon. Supreme Court have delivered clarified directions in this regard vide its judgment in IA No. 421 etc. in WP (Civil) No. 202/95 delivered that all the orders passed in contravention to the order issued on 12-12-96 operation of the same shall stand immediately stayed. Raising of water level in Periyar Wildlife Sanctuary is definitely a non – forestry activity, which is banned by the Hon'ble Supreme Court.

The effect of submergence to the environment, needs a detailed study through an Environment Impact Analysis as per the Environmental Impact Assessment notification issued by Ministry of Environment and Forests in 1994.

The raising of water level and the resulting loss of forests and wildlife is against the spirit of Articles 48 A and 51'A (g) of the constitution of India. Article 48 A reads. The state shall endeavor to protect and improve the environment and to safeguard the forests and wildlife of the country Article 51 A (g) reads it shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and Wildlife , and to have compassion for living creatures."

The preamble of the Convention on International Trade in Endangered species of Wild Fauna & Flora (CITES) of which India is a contracting party since Oct. 1976 recognized that "Wild fauna and flora in their many beautiful and varied forms are an irreplaceable part of natural system of earth which must be protected for this and the generation to come ..... People and States are and should be the best protectors of their own Wild fauna and flora." Thus it is our collective responsibility to save our natural heritage.

Since Periyar Dam is more than 100 years old, a possible breakage of the Dam causing mega disaster to human lives and properties cannot be ruled out with the commissioning of the Idukki Project in the seismic prone Idukki District any raising of the water level in the Periyar Dam could lead to unforeseeable consequences.

Wildlife Preservation Officer

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